

AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A system for enabling communication between a first network having a first network protocol and a second network having a second network protocol, at least one of said first and second networks being a storage area network, said system comprising:

a first data port for receiving input data from said first network said input data being expressed in said first network protocol;

a second data port for receiving state information indicative of a state of a first storage area network selected from said first and second networks; ~~and~~

a microsequencer system configured to translate said input data on the basis of said state information, the microsequencer system including at least one microsequencer, said microsequencer system translating said input data into corresponding data expressed in said second network protocol; and

an instruction memory accessible to the at least one microsequencer of the microsequencer system, said instruction memory having a plurality of instruction words, each of said instruction words forming a Very Long Instruction Word (VLIW) having a plurality of instruction fields executable in parallel by different functional units of each at least one microsequencer to enable the at least one microsequencer to execute a plurality of instructions in a single instruction cycle.

Claim 2 (original): The system of claim 1, wherein said microsequencer system comprises at least one programmable microsequencer.

Claim 3 (canceled)

Claim 4 (original): The system of claim 1, wherein said microsequencer system comprises a plurality of microsequencers configured to cooperate in translating said input data into corresponding data expressed in said second network protocol.

Claim 5 (currently amended): The system of claim 1, further comprising:
~~an instruction memory accessible to a constituent microsequencer of said microsequencer system, said instruction memory having a plurality of instruction words, each of said instruction words having sufficient length to hold at least two instructions; and~~
an instruction-memory pointer for identifying a selected instruction word in said instruction memory.

Claim 6 (currently amended): The system of claim 4, further comprising a translation-memory accessible to ~~a constituent~~the at least one microsequencer of said microsequencer system, said translation-memory having
a translation-memory address, and
a translation-memory element corresponding to said translation-memory address, said translation-memory element including data for causing an instruction-memory pointer to jump to a selected instruction word.

Claim 7 (original): The system of claim 6, wherein said translation-memory element is configured to include an absolute address of said selected instruction word.

Claim 8 (original): The system of claim 6, wherein said translation-memory element is configured to include an offset from a current instruction word to said selected instruction word.

Claim 9 (original): The system of claim 6, further comprising a translation-memory pointer for indirectly causing said instruction-memory pointer to jump to a selected instruction memory address.

Claim 10 (original): The system of claim 9, wherein said translation-memory pointer is configured to identify a selected translation-memory address corresponding to a translation memory element that contains data indicative of said selected instruction-memory address.

Claim 11 (previously presented): The system of claim 4, further comprising a translation-memory having:

- a translation-memory address;

- a first translation-memory element corresponding to said translation-memory address, said first translation-memory element including data for causing an instruction-memory pointer to jump to a first instruction word;

- a second translation-memory element corresponding to said translation-memory address, said second translation-memory element including data for causing said instruction-memory pointer to jump to a second instruction word; and

- a selector for selecting said first translation-memory element.

Claim 12 (original): The system of claim 11, wherein said selector comprises a multiplexer having

- a first multiplexer input for receiving data indicative of content of said first translation-memory element;

- a second multiplexer input for receiving data indicative of content of said second translation-memory element;

- an output providing data selected from at least said first multiplexer input and said second multiplexer input; and

- a control input for controlling data provided at said output.

Claim 13 (original): The system of claim 1, further comprising an output port in communication with said microsequencer system for providing said corresponding data to said second network.

Claim 14 (original): The system of claim 1, wherein said first and second data ports and said microsequencer system are integrated into one integrated circuit.

Claim 15 (currently amended): A system for enabling communication between a first network having a first network protocol and a second network having a second network protocol, said system comprising:

- a first input port for receiving input data from said first network;
- a second input port for receiving state information associated with said first network;
- a processing element in communication with said first and second input ports;
- an instruction memory accessible to said processing element, said instruction memory having a plurality of instruction words, each of said instruction words ~~having sufficient length to hold at least two instructions~~ forming a Very Long Instruction Word (VLIW) having a plurality of instruction fields executable in parallel by different functional units of the processing element to enable the processing element to execute a plurality of instructions in a single instruction cycle, said plurality of instruction words being selected to translate input data from said first protocol to said second protocol; and
- an instruction-memory pointer for identifying a selected instruction word in said instruction memory.

Claim 16 (original): The system of claim 15 wherein said processing element is selected from the group consisting of: a microsequencer system having at least one microsequencer; a micro-processor; and an application-specific integrated circuit.

Claims 17-23 (canceled)